Centers for Medicare and Medicaid Services

Consolidated Information Technology Infrastructure Contract (CITIC)

SUPPLEMENTAL INFORMATION HANDOUT

prepared July 2001

Current Ops: Tier 1 - Mainframe Processors

- *4 mainframe processors:*
  - *1 IBM 9672-T26;*
  - *1 IBM 9672-R46;*
  - *1 IBM 9672-R26; and*
  - *1 IBM 2064 model 102.*

- *IBM 9672-R26 processor:*
  - *logically isolated from other processors*
  - *wholly committed to supporting a discrete production workload--Encounter data.*
  - *1 Logical Partition (LPAR).*
  - *contains own DASD resources and Storagetek automatic tape library.*
  - *shares manual magnetic tape devices, various peripheral devices, and telecommunications access services with other processors.*

Current Ops: Tier 1 - Mainframe Processors (cont.)

- *Remaining 3 processors support entire Tier 1 processing infrastructure, including:*
  - *applications development;*
  - *applications testing and validation; production processing;*
  - *communications support, and*
  - *operating system testing and pre-installation certification.*
- *Production partitions share DASD and access to automated tape libraries, magnetic tape drive units, peripheral devices, and telecommunications access services.*
- *All production LPARs share same RACF database and, with exception of DB2 partition, share common work queues and output queues.*

Current Ops: Tier 1 - Mainframe Processors (cont.)

- *IBM 9672-T26 processor*:
  - *wholly committed to key enterprise databases supported by Model/204 environment.*
  - *2 production LPARs and 1 test LPAR.*
  - *test LPAR dedicated to operating system development and testing and is stand-alone in Tier 1 environment*.
- *IBM 2064 model 102 processor:*
  - *targeted to support all DB2 production enterprise database initiatives.*
  - ***does not** share work queues and output queues with other any other processor.*
  - *several present databases span multiple terabytes of DASD in size.*
  - *currently only 1 LPAR on this processor.*

Current Ops: Tier 1 - Mainframe Processors (cont.)

- *IBM 9672-R46 processor:*
  - *5 LPARs*
  - first LPAR provides platform upon which all Tier 1 application system development activities occur.
  - second LPAR supports production workload processing.
  - third LPAR dedicated to mainframe system software testing and pre-production validation.
  - fourth LPAR dedicated to validation testing of Tier 1 application systems.
  - fifth LPAR dedicated to testing of client/server application systems that are split across multiple IT platforms, usually mainframe and mid-tier and/or PC.

Current Ops: Tier 1 - Mainframe Software Environment

- *Operating system platform upon which Tier 1 is currently based is OS/390 version 2.10.*
- *Data center upgrades operating system releases twice per year.*
- *Tier 1 platform also operates variety of proprietary software products to establish application development/testing environment and functionality required by legacy application systems.*
- *Products from vendors such as Computer Associates, Compuware, BMC, IBM, and the Candle Corporation resident on Tier 1.*

Current Ops: Tier 1 - Mainframe DASD

- *DASD consists of primarily Hitachi RAID-5 devices.*
  - *HDS 7700 [classic] unit,*
  - *HDS 7700E, and*
  - *HDS 9960 unit.*
- *Approximately 23.5 TB of Tier 1 RAID-5 storage space is contained on Hitachi DASD.*
- *Another 1.6 TB of Tier 1 DASD contained on IBM RAID–5 devices.*
  - *1 unit of IBM RAMAC-3*
  - *3 units of IBM RAMAC Virtual Array devices.*
  - *All of these units attach to one or more Tier 1 processors via IBM ESCON channels.*

Current Ops: Tier 1 - Mainframe Tape Data Storage

- *Tape Media Operations Center co-located with Alternate Command Center and comprises 11,000 square feet with capacity of 600,000 magnetic cartridges and reels.*
- *All magnetic media stored in SpaceSaver and White Office Systems, automated moveable and manual extreme racks.*
- *Users create magnetic data in 9, 18, 36 and 256 track formats.*
- *Receive and exchange magnetic media in various formats with other agencies and external users.*

Current Ops: Tier 1 - Mainframe Tape Data Storage (cont.)

- *Tape Data Storage environment utilizes Ten (10) StorageTek 9310 robotic silos with (80) 36 Track Timberline tape drives.*
- *Manual tape drive environment includes; (16) IBM 18 track drives, (16) 36 track Hitachi drives, (52) Timberline drives and (4) StorageTek 3420 drives.*
- *All tape mounts are displayed on a 10 line by 24 color display panel by the QuickTAPE Tape Mount Display System from Texas Digital Systems.*
- *Recently implemented Two (2) IBM Magstar® 3494 Tape Libraries with Virtual Tape Server and (52) Magstar 3590 256 track high capacity tape drives.*

Current Ops: Tier 1 - Mainframe Tape Data Storage (cont.)

- *Users responsible for monitoring retention and currency of their created data.*
- *Users must store mission critical data at offsite storage location.*
- *Users must utilize the CA-1 Vault Management System to automate vaulting requests.*
- *Virtual storage and high capacity tape technology managed by CA-1 Tape Management System and IBM's DFSMS/hsm storage environment.*
- *Research and investment for innovations in:*
  - *Centralized storage solutions;*
  - *Tape device sharing;*
  - *Data sharing across platforms;*
  - *Enhanced high-end availability; and*
  - *Disaster tolerance of tape data storage technologies.*

Current Ops: Tier 1 - Mainframe Disaster Recovery

- *Summary of FEDSIM Tier 1 Hardware:*
  - *250 MIPS, 1024MB Main Memory, 1024MB Expanded, 6 PR/SM LPARs capable of executing IBM OS390/z/OS System Control Program(SCP).*
  - *720 3390-3 DASD addresses, 1024MB Caching, Fast Write, Dual Copy.*
  - *8 3590E-11 Magnetic Tape Addresses.*
  - *56 3490E Cartridge Tape Addresses w/IDRC.*
  - *8 3420 Reel Tape Addresses.*
  - *PC's, 3270 Terminal, Printers.*

Current Ops: Tier 1 - Mainframe Disaster Recovery (cont.)

- *Summary of FEDSIM Tier 1 Communication Equipment:*
  - *1 IBM 3745-31A FEP 16MB, 1 Type 3 Token Ring Adapter, 1 Block and 1Byte Channel Adapter.*
  - *1 CISCO 7513 Router with CIP Card, Token Ring and Ethernet Ports.*
  - *1 4' X 4' Hot Node Communication Storage Area.*
  - *1 CISCO 4700 Router w/ Frame Relay T1 link, both provide by AGNS, for connectivity to AGNS network.*
  - *1 56000 point-to-point circuit w/DSU and Encryption Device for connectivity to Department of the Treasury.*
  - *All circuits terminate at North Bergin. Comdisco responsible for bridging circuits to secondary site if used for recovery.*

Current Ops: Tier 1 - Mainframe Environmentals

- *Physical Environment:*
  - *Approximate total size is 32,000 square feet, 364 feet long, average 80 feet wide.*
  - *Integrated Test Facility (1850 sq ft).*
  - *High speed printer room (1920 sq ft).*
  - *Tape media operations and alternate command center (11,000 sq ft).*
  - *Primary command center and technical control (2200 sq ft).*
  - *Communications room (1670 sq ft).*
  - *Main computer room (10,000 sq ft).*
  - *Controlled warehouse space (800 sq ft).*
  - *Various offices, closets and miscellaneous space.*

Current Ops: Tier 1 - Mainframe Environmentals (cont.)

- *Physical Environment (cont.):*
  - *Raised floor (2' X 2' concrete filled tiles with bolted stringers) installed over 2' deep sunken concrete slab floor (no ramps), columns form bays measuring 26' by 26', under floor drains are located in each bay.*
  - *Ceiling height 12', exterior walls cast concrete with no windows, interior walls plaster board installed floor to ceiling, perimeter walls fire-rated slab-to-slab construction.*
  - *Floor covering high-pressure vinyl in equipment areas. Normally occupied areas carpeted to absorb noise.*
  - *22 satellite rooms and 22 wire closets located throughout facility, 2 of each at central core on each floor of complex, satellite rooms and wire closets considered data center/infrastructure space.*

Current Ops: Tier 1 - Mainframe Environmentals (cont.)

- *Electrical Power:*
  - *8 Liebert power distribution units located in main data center, 1 in communications room, 3 in tape media operations area, 1 in print room, 1 in integrated test facility and 1 in voice data switch room.*
  - *Electrical power provided to data center, 22 satellite rooms and 22 wire closets by 3 Liebert 500 kVA Uninterruptible Power System (UPS) configured in parallel.*
  - *Lead acid batteries sufficient to supply 1500 kVA electrical load for 30 minutes provide immediate emergency backup power to data center power distribution units through UPS.*
  - *HVAC units do not receive power from UPS, but do receive power from emergency generators.*

Current Ops: Tier 1 - Mainframe Environmentals (cont.)

- *Electrical Power (cont.):*
  - *Dual electrical power feeds provide primary and backup electrical power to the entire facility.*
  - *In event of primary feeder failure, backup initiates automatically.*
  - *In event that both primary and secondary feeders interrupted, four 1400 kW diesel generators automatically started and brought on line.*
  - *Diesel generators provide electrical power for life safety, fire systems, data center, voice data switch room and building chillers that provide chilled water to HVAC units in critical areas and areas requiring 7 X 24 HVAC supply.*
  - *Generators also engineered to provide electrical power to entire facility or to back feed the public utility at rate of 4.4 megawatts.*

Current Ops: Tier 1 - Mainframe Environmentals (cont.)

- *HVAC:*
  - *All HVAC units operate on chiller water.*
  - *18 Liebert HVAC units in data center, 3 Liebert HVAC units in UPS room, and 2 Liebert HVAC units in voice data switch room.*
  - *Units are of various sizes ranging from 7.5 to 40-ton based on anticipated heat load at time facility designed.*
  - *Approximately 50, 3-ton ceiling mounted Liebert mini-mate HVAC units in satellite rooms, wire closets, and voice data switch UPS room.*
  - *HVAC units supporting critical 7X24 loads on building chiller loop operating independently of building automation system.*
  - *Water supplied by public utility, but facility also has in-ground well for emergency supply.*

Current Ops: Tier 1 - Mainframe Environmentals (cont.)

- *Monitoring Systems:*
  - *Data center, UPS room, and voice data switch rooms monitored by Liebert Site Scan 2000 system.*
  - *UPS rooms contain hydrogen sensors.*
  - *Building automation console in command center monitors building systems not connected to Liebert SiteScan 2000--monitors satellite rooms and wire closet HVAC, building chillers, fire detection systems, etc.*
  - *Enunciator panels in the auxiliary command center give operational status for diesel generators.*
  - *Enunciator panels and room maps in auxiliary command center provide location for water under-floor conditions in data center. Same system installed in voice data switch room for local monitoring.*

Current Ops: Tier 1 - Mainframe Environmentals (cont.)

- *Safety and Emergency Systems:*
  - *Data center equipped with wet-pipe ceiling sprinkler fire system, non-zoned, flush, capped, sprinkler heads with activation temperature of 165 degrees.*
  - *Voice data switch room and UPS rooms have dry-pipe sprinkler systems.*
  - *No halon or CO2 systems and no under-floor systems other than smoke detectors.*
  - *Data center equipped with under-floor, ceiling and above ceiling smoke detectors-- enunciator panels at front and main entrance of data center.*

Current Ops: Tier 1 - Mainframe Environmentals (cont.)

- *Safety and Emergency Systems (cont.):*
  - *Emergency power off (kill) switches located at front, middle, and main data center exits.*
  - *Data center, voice data switch room, and satellite rooms secured by card key activated locks.*
  - *24 X 7 guard office located at main entrance of data center.*
  - *Video surveillance of data center and entrances is maintained from guard office.*

Current Ops: Tier 2 - Servers UNIX Environment

- *Functional Areas:*
  - *Database, Data-Mart, Data Mining*
    - Approximate total memory 18 GB.
    - Approximate total internal storage space 225 GB.
    - Approximate total external storage space 11.5 TB.
  - *Enterprise Network Management*
    - Approximate total memory 3.5 GB.
    - Approximate total internal storage space 234 GB.
    - Approximate total external storage space 15 GB.

Current Ops: Tier 2 - Servers UNIX Environment (cont.)

- *Functional Areas (cont.):*
  - *Security and Monitoring*
    - *Approximate total memory 2.5 GB.*
    - *Approximate total internal storage space 94 GB.*
    - *No external storage.*
  - *Test and Validation*
    - *Approximate total memory 2 GB.*
    - *Approximate total internal storage space 94 GB.*
    - *Approximate total external storage space 90 GB.*

Current Ops: Tier 2 - Servers UNIX Environment (cont.)

- *Hardware:*
  - *24 IBM RISC 6000 servers:*
    - *5 F50's -- 1 F30*
    - *9 J40's -- 1 59H*
    - *1 S80 -- 3 E30's*
    - *1 SP2 (partitioned into 3 nodes)*
  - *5 Sun Microsystems:*
    - *2 SPARCstation 20's*
    - *2 Sparc Ultra 5 workstations*
    - *1 Sun ES 10000 Enterprise server (partitioned into 3 domains)*
  - *1 SGI02 workstation*

Current Ops: Tier 2 - Servers UNIX Environment (cont.)

- *Operating System Release Level:*
  - *IBM RISC 6000 systems operate under IBM Unix operating system, (AIX):*
    - *3 servers at release 4.2.1*
    - *9 servers at release 4.3.2*
    - *12 servers at release 4.3.3*
  - *Sun Microsystems servers operate Solaris Unix operating system:*
    - *all servers at Solaris release 7*
    - *Solaris release 8 currently in testing stage*

Current Ops: Tier 2 - Servers UNIX Environment (cont.)

- *System and Application Backups:*
  - *IBM RISC-6000 SP and nodes:*
    - *Operating system backed up utilizing MKSYSB utility to Control Workstation (COCWS) and local 4mm tape drive.*
    - *COTS product and database backups copied to ADIC DLT 35 GIG Tape Drive.*
    - *Remaining IBM RISC-6000 server system and application backups performed on local 4mm tape drives.*
  - *Sun ES-10000 domains:*
    - *Operating system backed up to Hitachi raid DASD.*
    - *COTS products and database backups copied to DLT with capacity of 3 Terabytes.*

Current Ops: Tier 2 - Servers UNIX Environment (cont.)

- *COTS Software:*
  - *Oracle and Oracle products operating under release levels 8.1.6, 8.1.6.2, and 8.1.5. (Oracle Express, Oracle Gateway to DB2, etc.)*
  - *Checkpoint FireWall-1 release 4.0*
  - *Cisco Resource Management Enterprise release 2.0*
  - *Cisco Netsys release 1.0*
  - *Tivoli Framework release 3.7*
  - *Tivoli Distributed Manager release 3.6.2*
  - *Tivoli Inventory Manager release 3.6.2*
  - *Tivoli Software Distribution release 4.0*
  - *Tivoli Network Manager release 5.1*
  - *Unify Database software release 6.3*

Current Ops: Tier 3 - Desktop Distribution of Assets

- *"Desktop system" counts include:*
  - *All equipment leased under current GSA contract,*
  - *All Government-furnished equipment, and*
  - *All notebook/laptop computers.*
- *Central Office:*
  - *Approximate number of desktop systems- 3275*
  - *Includes offices at Governor's Court and Lord Baltimore Drive.*
- *Washington D.C.*
  - *Approximate number of desktop systems- 155*

Current Ops: Tier 3 - Desktop Distribution of Assets (cont.)

- *Regional Offices (including outstations) approximate number of desktop systems:*
  - *Boston* *204*
  - *New York* *211*
  - *Philadelphia* *193*
  - *Atlanta* *244*
  - *Chicago* *270*
  - *Kansas City* *214*
  - *Dallas* *162*
  - *Denver* *143*
  - *San Francisco* *218*
  - *Seattle* *160*

Current Ops: Voice Communications Central Office Switch

- *Fujitsu F9600XL Switch*
- *8 CPR Deluxe Load switch with full redundancy.*
- *Currently operating off of custom Rev. 11 software.*
- *Electrical system fed from data system power with separate 48-volt battery back-up.*

Current Ops: Voice Communications
Communication Devices Connected to F9600XL

- *GOVERNOR'S COURT:*
  - *Remote site with F9600ES linked to Central Office F9600XL with FIPN (Fujitsu ISDN Private Network), via T1 between the two buildings.*
- *LORD BALTIMORE DRIVE:*
  - *Remote site with Remote Shelf Unit out of F9600XL via fiber link between the two buildings.*
- *SITEMAN SWITCH MANAGEMENT SERVER:*
  - *Fully automated software/hardware platform developed as integrated database manager for use with F9600XL.*
  - *Database serves as single reference point for managing, tracking, archiving and analyzing day to day moves and changes, repair and work order status, MDF & IDF cable information and personnel information.*

Current Ops: Voice Communications
Communication Devices Connected to F9600XL

- *DIAL-BY-NAME SERVER:*
  - *Commonly known as SPEED DIAL.*
  - *Serves as CMS telephone directory for CO and two remote sites.*
  - *Database directory automatically updated via Siteman server.*
  - *Accessed via programmable button on any telephone.*
- *ACD SERVER:*
  - *Serves as Basic Call Center Application for Central Office.*
- *MICRO-CALL SERVER:*
  - *Serves as Call Accounting Software Program.*

Current Ops: Voice Communications
Telephone Instruments and Analog Lines

- *Three types of telephones (approximate totals listed are for Central Office & 2 remote sites):*
  - *DT24DS*
    - *24 button set instrument with a two-way speaker.*
    - *Approximate number installed is 1,400.*
  - *DT12DS*
    - *12 button set instrument with a one-way speaker.*
    - *Approximate number installed is 2,800.*
  - *FT12D*
    - *Functions same DT12DS with larger buttons and easier to view call status and message waiting status.*
    - *Approximate number installed is 100.*
- *ANALOG LINES: approximately 1,200 analog fax and modem Lines.*

Current Ops: Voice Communications Conference Bridges

- *HARRIS CONFERENCE BRIDGE:*
  - *4 node Harris 20/20 PBX, Rev. 14 software.*
  - *Will handle up to 64-party conference call (can be joined to accommodate larger conferences).*
  - *Also serves as a back up to F9600XL to provide basic telephone service.*
  - *Unmonitored and unscheduled, as opposed to 64 Party Dual Conference Bridge.*
- *64 PARTY DUAL CONFERENCE BRIDGE:*
  - *Commonly known as Meet-Me-Bridge.*
  - *Also accommodates 64-party conference that can be scheduled by end-user or conference operator.*
  - *Monitoring and trouble shooting capabilities available for conference operator.*

Current Ops: Voice Communications Voicemail Systems

- *AVT Voicemail Systems*
  - *Two 64-Port Voice Mail Systems, Rev. 4.03B software.*
  - *One is used for voicemail.*
  - *The other is for the Automated Attendant.*
  - *Each system has the capability to be a back-up to the other.*

Current Ops: Voice Communications Sonet Ring

- *All service comes into Central Office building via Sonet Ring.*
  - *PRI's derived from Sonet Ring,*
  - *Copper derived from small users and non-switched service.*
- *5 FTS 2001 PRI's, 6 Verizon PRI's and 4 Verizon T-1's terminate in Point of Presence (POP) located in Telephone Switch Room.*
- *Additionally, 4 FTS 2001 PRI's and 3 Verizon PRI's terminate in POP located in data center.*

Current Ops: Cable Plant Telephone Closets

- *Total of 27 Telephone Closets, plus one test Infrastructure in the ITF.*
- *Closet Layout:*
  - *12 Closets in Central Building*
  - *7 Closets in South Building*
  - *6 Closets in North Building*
  - *1 Closet in Auditorium (not shown on diagram)*
  - *1 Closet in Warehouse (not shown on diagram)*
- *HUBS used in closets are NORTEL 5000.*
- *ROUTERS used in closets are NORTEL BCN 53000.*
- *SWITCHES used in closets are ACCELAR 8100.*

Current Ops: Cable Plant Closet Descriptions

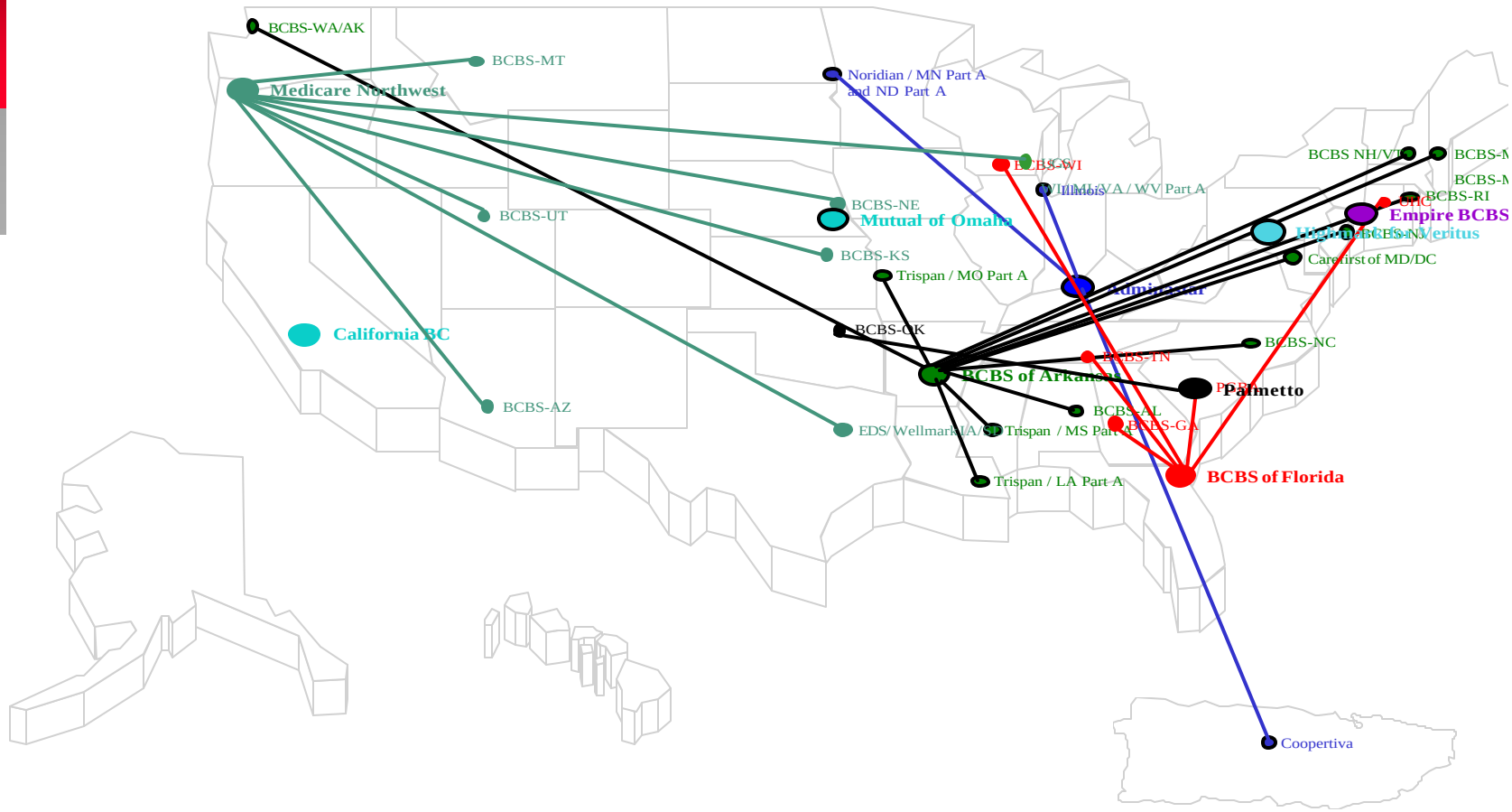
- *0609 Closet:*
  - *Has many of the conduits which feed North Building.*
  - *Contains no hubs or routers, however, so not considered a real telephone closet.*
- *3509 Closet:*
  - *Sample of configuration of most standard closets.*
  - *Contains Voice Cables, Data Cables, and Building Hub, which serve users in that segment.*

Current Ops: Cable Plant Closet Descriptions (cont.)

- *1209 Closet:*
  - *One of three main building closets with routers located in them, in addition to Voice Cables, Data Cables, and Building Hub.*
- *1509 Closet:*
  - *Has the most equipment located in it.*
  - *In addition to Voice Cables, Data Cables, and Building Hub, 1509 Closet has:*
    - *Campus 1 Hub,*
    - *Campus 2 Hub,*
    - *Development Hub*
    - *Accelar Switch.*

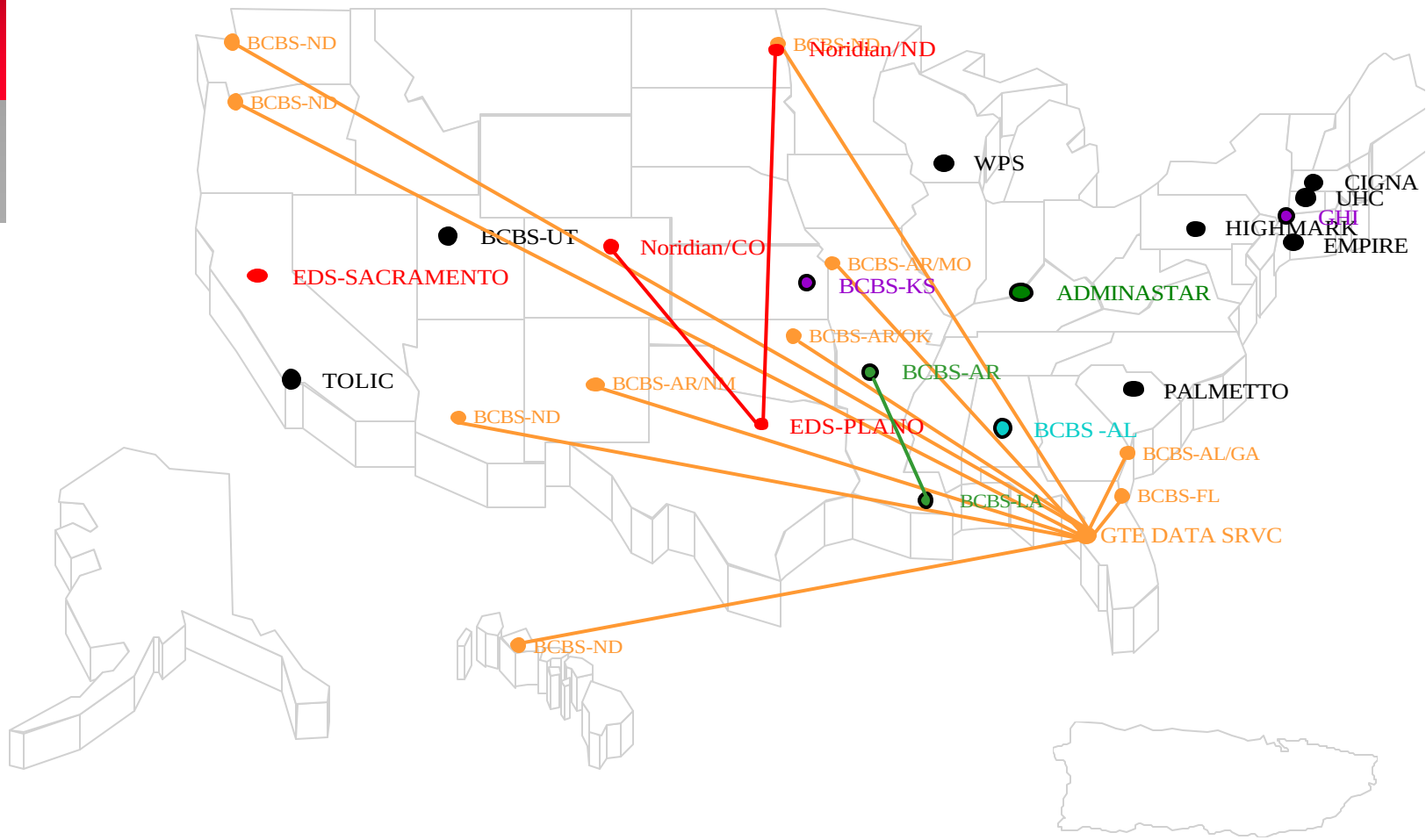
Current Ops: Data Communications Medicare Part A

CMS MDCN PART A PROCESSING CENTERS

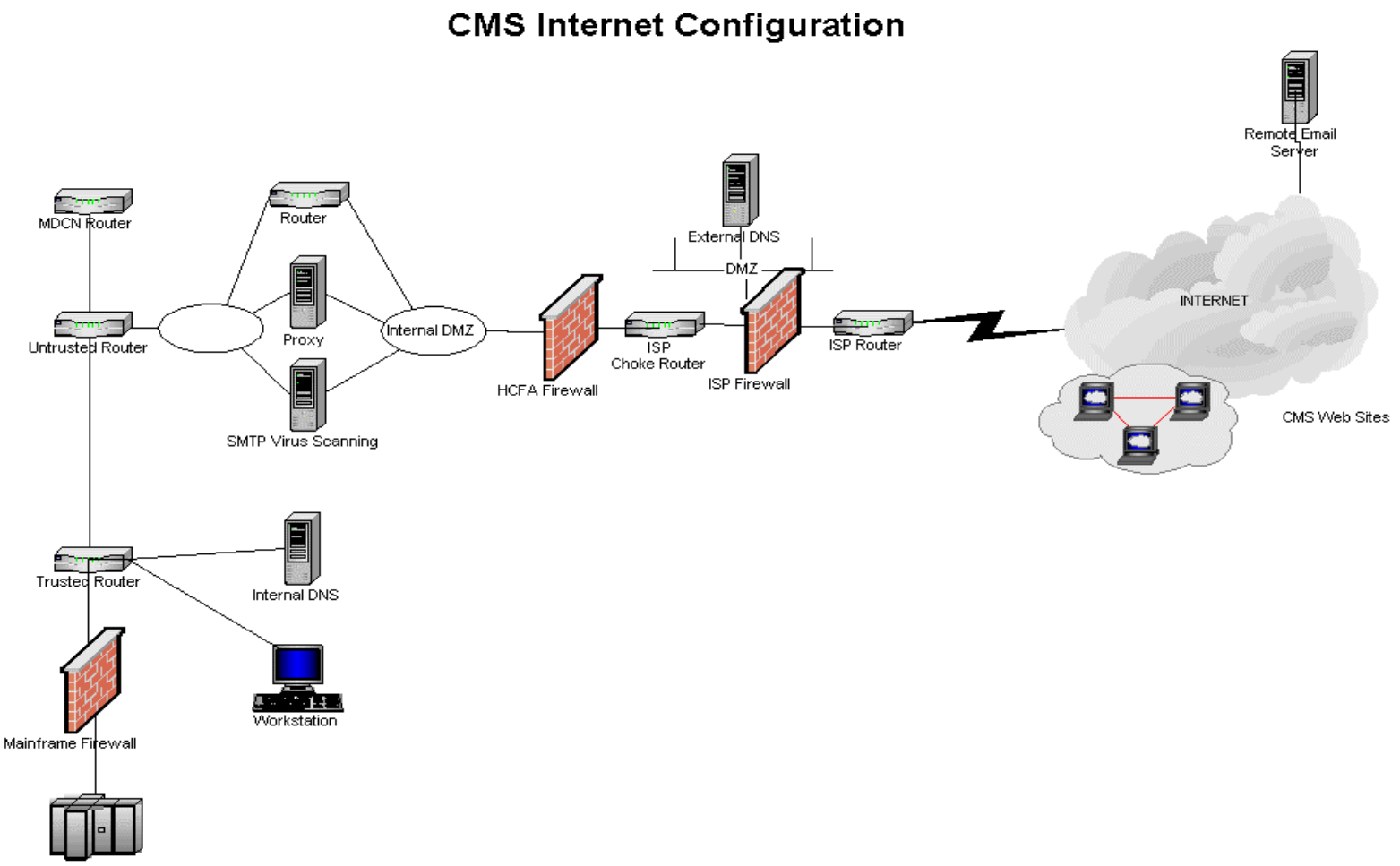


Current Ops: Data Communications Medicare Part B

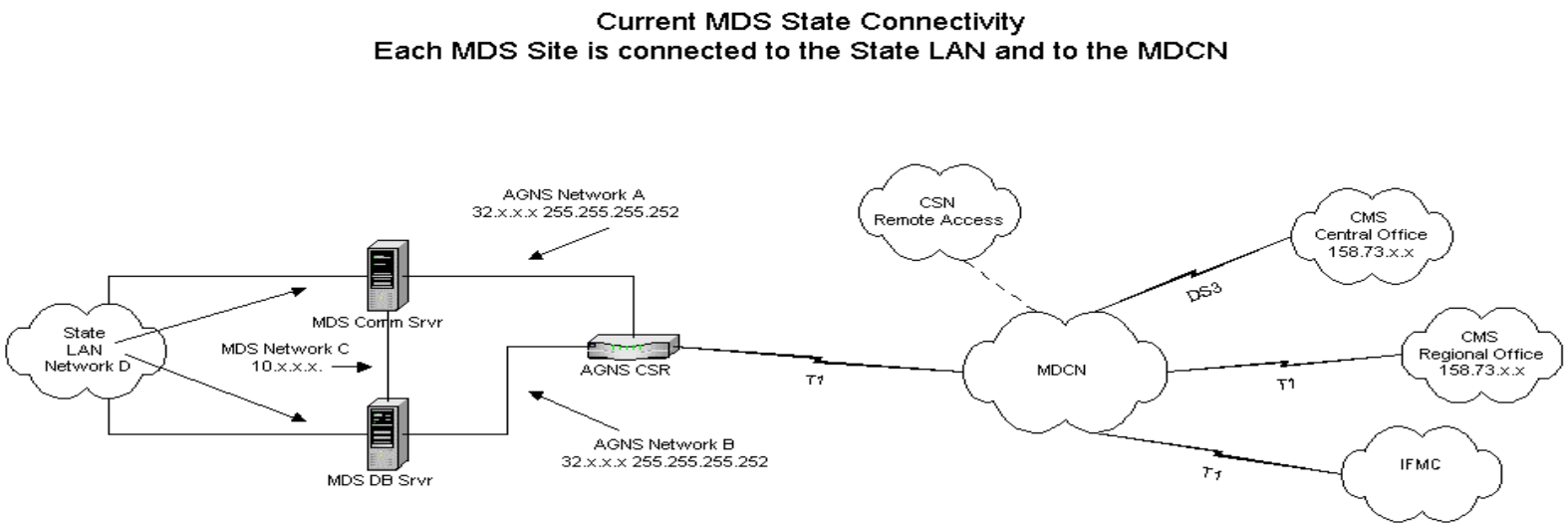
CMS MDCN PART B PROCESSING



Current Ops: Data Communications Internet Configuration



Current Ops: Data Communications
MDS State Connectivity



Current Operations: Integrated Test Facility

- *Currently Running:*
  - *Microsoft Windows NT 4.0 Workstation SP4 and SP6a*
  - *Microsoft Windows NT 4.0 Server SP6a*
  - *Novell 5.1 SP2a*
  - *AIX 4.3.3 (4.3.2 available)*
  - *GroupWise 5.5 32-bit client*
  - *Tivoli 3.7b*
  - *Zenworks 3*
- *Testing and/or Migrating to:*
  - *Microsoft Windows 2000*
  - *Microsoft Windows 2000 Server*
  - *Microsoft Windows 2000 Advanced Server*
  - *Red Hat 7.0 Linux*

Current Ops: Video Conferencing Central Office Locations

- *11 Room Systems*
  - *2 Tandberg 6000/7000 connected to ISDN Tri-BRIs (384K)*
    - *H.320 and H.323 Compatible*
  - *5 PictureTel Concordes connected to ISDN Tri-BRIs (384K)*
    - *H.320 only*
  - *4 Polycom Viewstation 512s connected to ISDN Tri-BRIs (384K)*
    - *H.320 and H.323 Compatible*
- *3 Desktop Systems*
  - *PictureTel 550 connected to ISDN BRI (128K)*

Current Ops: Video Conferencing Washington, DC Locations

- *5 Room Systems located on 3rd floor of the Hubert Humphrey Building:*
  - *PictureTel Concordes connected to ISDN Tri-BRIs (384K)*
  - *Polycomm Viewstation 512s connected to ISDN Tri-BRIs (384K)*

Current Ops: Video Conferencing Regional and Field Office Locations

- *10 Regional Offices (common configuration)*
  - *8 BRI Lines Derived from FTS-2001 (MCIW) PRI*
  - *PRI Switched by Adtran Atlas 800*
  - *2 Room Systems*
    - *1 PictureTel Concorde connected to ISDN Tri-BRIs (384K)*
    - *1 Polycom Viewstation 512 connected to ISDN Tri-BRIs (384K)*
  - *2 Desktop Systems*
    - *PictureTel 550 connected to ISDN BRI (128K)*
- *2 Field Offices*
  - *Puerto Rico- PictureTel 550*
  - *Miami - PictureTel Venue*

Current Ops: Web Hosting Production Environment

- *Servers used via content hosting solution:*
  - *4 Internet Web Servers – Windows NT 4.0*
  - *1 Intranet Web Server – Windows NT 4.0*
  - *1 Test/QA Server – Windows NT 4.0*
  - *1 Staging Server – Windows NT 4.0*
  - *1 Extranet web server – Windows NT 4.0*
  - *1 streaming media server – Real Server 8/AIX 4.3.3*
  - *2 Database SQL clusters (2servers/cluster) – Windows NT 4.0 Enterprise Edition*
  - *1 staging database SQL server – Windows NT 4.0*
  - *1 Intranet/QA database SQL server – Windows NT 4.0*

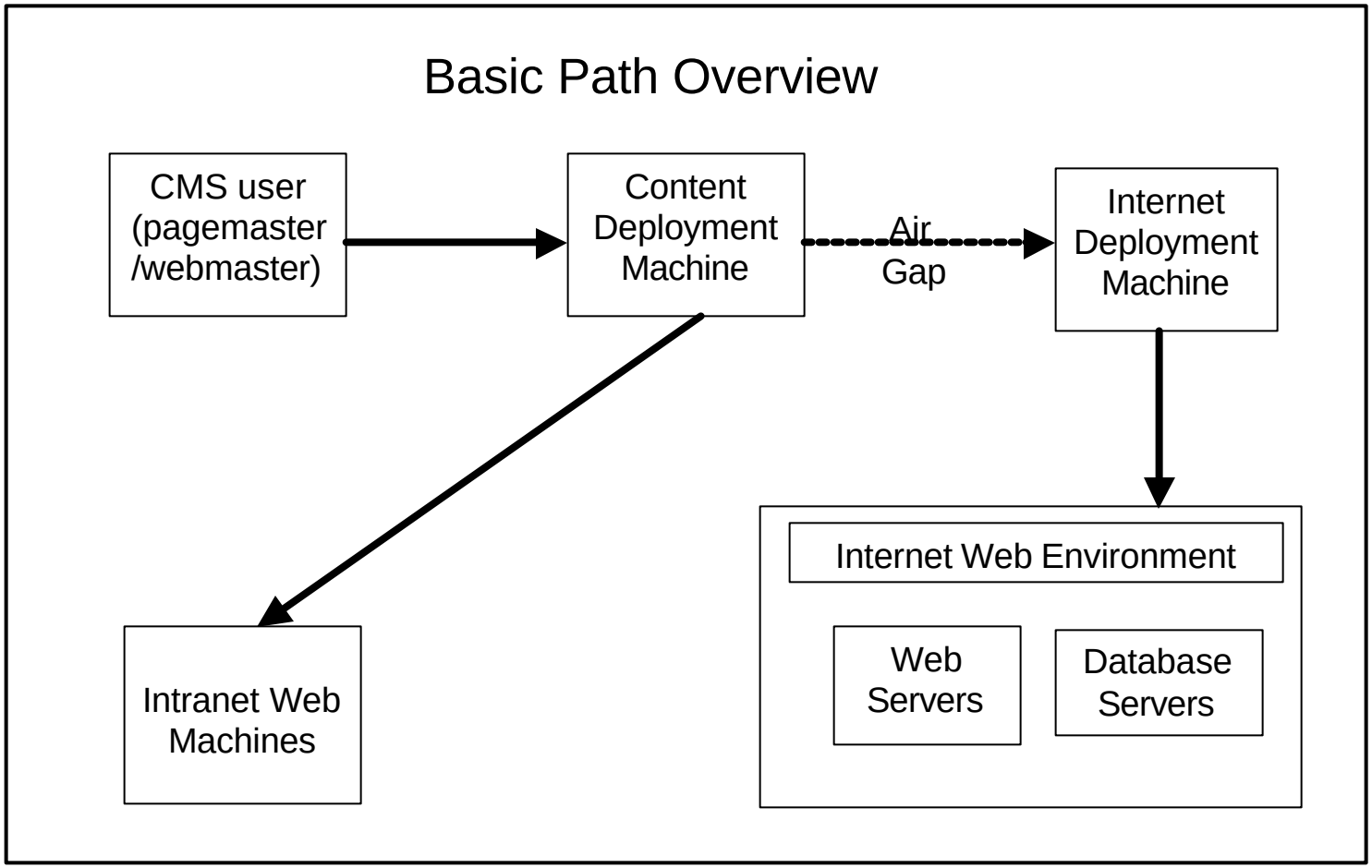
Current Ops: Web Hosting Production Statistics

MEDICARE.GOV	February 2001	March 2001	April 2001
Hits	6,439,940	6,516,986	5,861,810
Pages	2,407,989	2,521,042	2,224,048
Bytes	68,735,340,607	72,402,210,417	65,666,848,563
Seconds/Page View	91.83	85.85	85.19
Visits	693,137	687,596	600,542
Hits/Visit	9.29	9.47	9.76
Page Views/Visit	3.47	3.66	3.7
Seconds/Visit	247.94	248.31	250.88
HCFA.GOV	February 2001	March 2001	April 2001
Hits	15,091,535	16,561,665	14,973,090
Pages	4,171,541	5,033,817	4,207,755
Bytes	246,881,317,478	262,878,347,526	244,969,647,049
Seconds/Page View	129.08	106.15	116.86
Visits	1,135,900	1,249,498	1,127,333
Hits/Visit	13.28	13.25	13.28
Page Views/Visit	3.67	4.02	3.73
Seconds/Visit	452.39	416.18	411.48
HCFANET.HCFA.GOV	March 2001	April 2001	Partial May 2001
Hits	2,233,028	2,419,394	125,294
Pages	546,241	462,049	23,965
Bytes	16,625,136,888	19,433,320,113	971,943,313
Seconds/Page View	170.45	191.24	181.72
Visits	438,806	413,965	21,048
Hits/Visit	5.08	5.84	5.95
Page Views/Visit	1.24	1.11	1.13
Seconds/Visit	367.04	382.31	390.02

Current Ops: Web Hosting
Development/Deployment Environment

- *Current CMS Development/Deployment Equipment:*
  - *4 Web development servers - Windows NT 4.0*
  - *2 Content deployment server - Windows NT 4.0*
    - *1 Intranet/Internet Content Repository/Intranet Deployment Server*
    - *1 Internet Deployment Server*
  - *1 Intranet CD-ROM server - Windows NT 4.0*
  - *1 ListServer - Windows NT 4.0/L-Soft ListServ Lite 1.8d*
  - *1 Backup/FTP Virus Signature Distribution server - Windows NT 4.0*
  - *1 Lotus Quickplace collaboration server (pilot) - Windows NT 4.0*

Current Ops: Web Hosting Deployment Path Diagram



Current Ops: Web Hosting
Current Software Standards

- *Platform--Windows NT 4.0 (will migrate to Windows 2000)*
- *Microsoft Internet Information Server (IIS 4.0)*
- *Active Server Pages (ASP 2.0)*
- *Microsoft Transaction Server (MTS)*
- *Microsoft Site Server (for deployment only at this juncture)*
- *Visual Source Safe – For a content repository*
- *Visual Interdev – for ASP and COM application editing*
- *Allaire HomeSite – for HTML/ASP editing*
- *Visual Studio*
- *Oracle 8 database (for Intranet and Extranet applications)*
- *Microsoft SQL Server 6.5 (for Internet applications and Intranet)*

Current Ops: Database Administration Enterprise Data Storage

- *Sequential*
  - *Tapes (3490 - 3590) - 420,000 Carts*
  - *Largest Seq. Tape File - NCH*
  - *Disk - 30 Terabytes*
- *DBMS*
  - *MODEL204*
  - *CA-IDMS*
  - *DB2*
  - *ORACLE*
  - *SQLServer*
  - *SYBASE*

Current Ops: Database Administration DBMS Environment

- *IBM Mainframes (2) OS/390 R2v10*
  - *MODEL204*
  - *CA-IDMS*
  - *DB2*
- *IBM RS/6000 SP AIX R 4.3.2*
  - *ORACLE*
- *SUN 10000 SOLARIS R2.7*
  - *ORACLE (Base & Express)*
  - *SYBASE*
- *VARIOUS SERVERS - NT R4.0 sp 6*
  - *ORACLE (Base & Express)*
  - *SQLServer*

Current Ops: Database Administration MODEL204 Rel 4.1.1

- *Run in Logical Partition (LPAR) L600 residing on R9672-T26*
  - *(238 MIPS , 2 gig memory)*
- *13 major regions*
- *Production (5) regions*
  - *1,722 M204 data structures*
  - *200 gigabytes*
- *Test (8) regions*
  - *3,375 M204 data structures*
  - *160 gigabytes*

Current Ops: Database Administration DB2 Version 6

- *Run in 2 LPARs both residing on Z102*
  - *(450 MIPS , 5 gig memory)*
- *7 DB2 Subsystem (93,000+ Data Sets)*

DB2W - Warehouse
- *718 Data Structures*
- *6,000 Gigabyte*

DB2P - Production
- *805 Data Structures*
- *1,000 Gigabyte*

DB2V - Validation
- *823 Data Structures*
- *1,000 Gigabyte*

DB2T - Test
- *938 Data Structures*
- *2,000 Gigabyte*

DB1P - Medicare Beneficiary DB (MBD)

DB1V - MBD Validation

DB1T - MBD Test

Current Ops: Database Administration ORACLE R 8.1.6

- *RS/6000SP AIX 4.3.2*
  - *Prod - 6 processor -450 mHz - 8 gig RAM*
    - *5 Database Instances*
    - *600 gigabytes*
    - *ORACLE Express (Multi-Dimensional DB)*
  - *Test - 4 processor -375 mHz - 2 gig RAM*
    - *11 Database Instances*
    - *400 gigabytes*
    - *ORACLE Express (Multi-Dimensional DB)*

Current Ops: Database Administration ORACLE R 8.1.6 (cont.)

- *SUN 10000 - SOLARIS R 2.7*
  - *Prod - 12 processor - 450mHz - 12 gig memory*
    - *1 Instances*
    - *3.5 terabytes*
    - *ORACLE Express (Multi-Dimensional DB)*
    - *ORACLE GATEWAY*
  - *Test - 4 processor -450mHz - 2 gig memory*
    - *1 Instances*
    - *500 gigabytes*
    - *ORACLE Express (Multi-Dimensional DB)*
    - *ORACLE GATEWAY*

Current Ops: Database Administration ORACLE R 8.1.6 (cont.)

- *VARIOUS NT Servers - NT R 4.0 sp 6*
  - *1-4 processors*
    - *3 Major Instances*
    - *200 gigabytes (100 gbyte HCIS instance)*
    - *ORACLE Express (Multi-Dimensional DB)*

Current Ops: Database Administration SYBASE R12

- *SUN 10000 - SOLARIS R 7*
  - *Prod - 14 processor -450mHz - 14 gig RAM*
    - *1 Instance*
    - *3.5 Terabytes*

Current Ops: Database Administration SQLServer R 6.5 & 7.1

- *VARIOUS NT Servers - NT R 4.0 sp 6*
  - *1-4 processors*
    - *X Instances*
    - *xxx gigabytes*

Current Ops: Database Administration CA-IDMS R13 Service Pack 3

- *Run in Logical Partition (LPAR) L600 residing on R9672-T26*
  - *(238 MIPS , 2 gig memory)*
- *6 Applications*